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The Influence of Green Supply Chain Management on Sustainability: An Empirical Study of Economic Learners, Perception

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Abstract

The purpose of this paper is to gather primary data on how well economic students at universities in Can Tho, Vietnam understand the impact of green supply chain management (GSCM) on sustainability performance. This study covers five GSCM factors (internal environmental management, green procurement, green manufacturing, green distribution, and environmental education) and three sustainability performance dimensions (economic, environmental, and social performance). Exploratory experiments and a literature study on GSCM and sustainability performance led to the development of the model. To collect primary data, a questionnaire was developed, and 534 people completed the questionnaire. SPSS and AMOS 22.0 were used for the quantitative and descriptive analysis of the data, respectively, based on a structural equation model (SEM). This research found that GSCM impacts sustainability performance differently. Green procurement has a significant effect on economic, environmental, and social performance. Internal environmental management significantly affects environmental and social performance. Environmental education significantly influences social performance. By contrast, there is no relationship between green manufacturing, green distribution, and sustainability performance. The findings highlight the need for universities to emphasize five areas (internal environmental management, green procurement, green manufacturing, green distribution, and environmental education) that are crucial to the long-term success of the economy, environment, and society. While some studies have looked at how GSCM influences sustainability performance, little has been done to raise economic students' knowledge of the role it plays in determining a company's sustainability success. In the long run, economic majors will enter the workforce as entrepreneurs who know their place and understand their role in contributing to the growth of their companies and the economy. To ensure the long-term success of businesses, communities, and ecosystems, it is essential to raise students' awareness of the importance of corporate social responsibility, community service, and environmentally responsible manufacturing.

Keywords: *Economic Student, Green Supply Chain Management, Sustainability.*

Introduction

Climate change is one of society's most polarising and complex problems, and its implications on business are already enormous and will expand. Over 200 countries joined "The Paris Agreement" in December 2015 to address this major problem. It began in November 2016. The Paris accord calls for net zero emissions and a 20C limit on global warming. Business supports the Paris Climate Accord because industry causes climate change. 350 companies supported the Accord at COP22. Companies may reduce CO2 emissions to support global agreements and save money.

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Adopting a carbon strategy may provide companies with an advantage. Businesses must adapt and use climate change to compete. Hence, industry businesses and decision-makers need assistance (Carola et al., 2013).

Global business and economy increasingly value sustainable development. Sustainable supply chains incorporate economic, environmental, and social aspects. Scientists and businesses are increasingly interested in sustainable development techniques and tools (Blanka, 2019). Environmental concerns have dominated supply chain design research. Energy-saving transportation and industrial technologies and GHG emissions have been researched (Pan, Ballot & Fontane, 2013; Wang, Xiaofan & Shi, 2011). Green Supply Chain design considers the environment. "Green Supply Chains" are being established by companies (GSC). Businesses are prioritising GSCM procedures. Long-term Green Supply Chain Strategies (GSCS) incorporate environmental thinking into supply-chain management to obtain a competitive advantage (Kumar, Teichman, & Timpernagel, 2011). This article improves the GSCS's carbon emission indicator (Carola et al., 2013).

To maintain a competitive advantage, organizations must prioritize green supply chain (GSCM) management (Zhu et al., 2008). The US, EU, and Japan have debated the GSCM for years. Forward-thinking firms globally are adopting GSCM, a new systematic environmental approach to green supply chain management (Bhool & Narwal, 2013). GSCM is still a new topic of study in Vietnam, despite its growing popularity elsewhere (Do et al., 2020). Businesses require methods to find new revenue streams, generate value, improve brand image, save costs, and reduce risks. This article's Green Supply Chain Strategy offers suggestions. It provides step-by-step guidance from evaluation through result monitoring (Luthra et al., 2013). The factors are reference models for assessing green supply chain management's impact on sustainable development.

Methodology

Sampling Technique

The main purpose of the research was to find out the relationship between GSCM practices on the sustainability performance of economic students in Can Tho city, Vietnam. Before the development of the questionnaire, three academicians and 30 supply chain managers and scholars were asked which dimensions of GSCM practices should be considered. As a result of these practitioners, five dimensions are considered to be analyzed (internal environmental management, green procurement, green manufacturing, green distribution, and environmental education). The study adopted a structured questionnaire to collect data from 534 respondents from economic students from Business Administration, International Business, Hospitality Management, and Multimedia Communicaion disciplines. Purposive sampling was used to select respondents due to their in-depth knowledge and involvement in the execution and strategy formulation with regard to issues related to supply chain and logistics. All selected students have experienced courses such as supply chain management, global procurement, logistics, and Omni channels. Walk-in follow-ups were made to classes to collect by QR code in 10 weeks (from November 01, 2022, to January 15, 2023). After 10 weeks of data collection, 534 questionnaires were retrieved representing an 85% response rate, which was deemed appropriate for data analysis.

The questionnaire is made up of two sections along with a section regarding control variables. Control variables considered as categorical measures were composed of gender, age, and

educational level. The two main sections were dealt with a five-point Likert scale (1= strongly disagree, 5= strongly agree). The first section covered 33 items used to measure GSCM based on (Bu et al., 2020; Dadhich et al., 2015; Ghobakhloo et al., 2013; Xie & Breen, 2012). These items were circulated into dimensions as follows: internal environmental management (four items), green procurement (five items), green manufacturing (four items), green distribution (five items), and environmental education (three items). The second section consists of economic (seven items), environmental (five items), and social (six items) performance to measure sustainability performance.

Empirical Model

Sustainability

The sustainability effort is evaluated from economic, environmental, and social viewpoints.

Organizations utilize GSCM to improve economic performance or profitability. Economic performance is an organization's capacity to save costs via wise buying, waste management, energy consumption, business waste disposal, and environmental fines (Zhu et al., 2008). Hence, we included GSCM practice-economic performance connection studies that assessed economic performance using objective or perceived sales, profit, and market share improvements (Chan et al., 2012; Lee et al., 2013; Kuei et al., 2013; Abdullah & Yaakub, 2014).

Energy savings, trash reduction, and emission reduction comprise environmental performance. Environmental performance involves decreasing air, water, and solid wastes and hazardous product use (Zhu, et al., 2005). Environmental performance criteria included energy saving, waste, pollution, and emissions (Rao, 2002; Zhu et al., 2005; Chiou et al., 2011; Lee et al., 2012).

Social performance measured how GSCM practices affected product and corporate image, staff health and safety, and consumer loyalty and satisfaction (Zailani et al., 2012b; Ashby et al., 2012).

Research Hypothesis

This literature analysis examined GSCM methods in relation to supply chain activities. Several GSCM techniques have been studied, including (Ninlawan et al., 2010; Green et al., 2012, Lee et al., 2012; Laosirihongthong et al., 2013; Thoo, et al., 2014). In 2005, Zhu et al. established four GSCM dimensions: internal environmental management, external GSCM, eco-design, and investment recovery. Holt & Ghobadian (2009) listed logistics, supplier assessment and evaluation, green procurement and logistics regulations, supplier education and mentoring, and industrial networks as important GSCM activities. According to Ninlawan et al., 2010 and Thoo et al., 2014, manufacturing sectors need green buying, production, distribution, and logistics to increase sustainability. Green et al. use green information systems, green purchasing, consumer engagement, eco-design, and investment recovery. Green et al. (2012) suggested GSCM. According to Lee et al., 2012, GSCM processes include corporate and operational methods such as internal environmental management, green procurement, customer cooperation, and eco-design. Internal environmental management, green procurement, green manufacturing, green distribution, and environmental education were explored in this study (Thoo et al., 2015).

Intra-organizational environment management (IEM) describes an organization's environmental sustainability practices. Research supports this (Zhu et al., 2005; Ann et al., 2006; Kim, Youn, & Roh,

2011; Huang et al., 2012; Kuei et al., 2013; Cheng et al., 2014).

H1: *There is a positive influence of internal environment management on sustainability*

Green procurement: An organization uses green procurement to pick suppliers based on their environmental competence, technical and eco-design capabilities, environmental performance, ability to produce environmentally friendly products, and ability to support the main company's environmental goals (Paulraj, 2011). Green procurement is a collection of supply-side practices used by an organization to pick suppliers based on their technical, environmental, and social competency. This study also emphasizes the 3Rs—reuse, recycle, and reduce—as part of the green procurement process for paper and parts containers (plastic bag/box), placing purchasing orders via email (paperless) (Ninlawan et al., 2010; Lee et al., 2012), eco-labeling products, ensuring suppliers' environmental compliance certification, and auditing suppliers' internal environmental management (Lee et al., 2012).

H2: *There is a positive influence of green procurement on sustainability.*

Green manufacturing is a production method that actively designs and redesigns green processes (Green et al. 2012; and Lee et al. 2012) decreasing hazardous substances, boosting energy efficiency in lighting and heating, practicing 3Rs, and limiting waste (Ninlawan et al., 2010), and so on., Green et al. (2012), and Lee et al. (2012) all agree that in order to be considered "green," a company's product designs must allow for the easy reuse, recycling, and recovery of parts and materials; the elimination or reduction of hazardous products used in the manufacturing process; and the judicious use of both raw materials and energy.

H3: *There is a positive influence of green manufacturing on sustainability.*

Green distribution includes downsizing packing, using "green" materials, promoting recycling and reuse, standardizing packaging among vendors, and encouraging returnable packaging. (6) Reduce material and unpacking time (Ninlawan et al., 2010), (7) Use recyclable pallets, and (8) Save warehouse energy (Holt and Ghobadian, 2009).

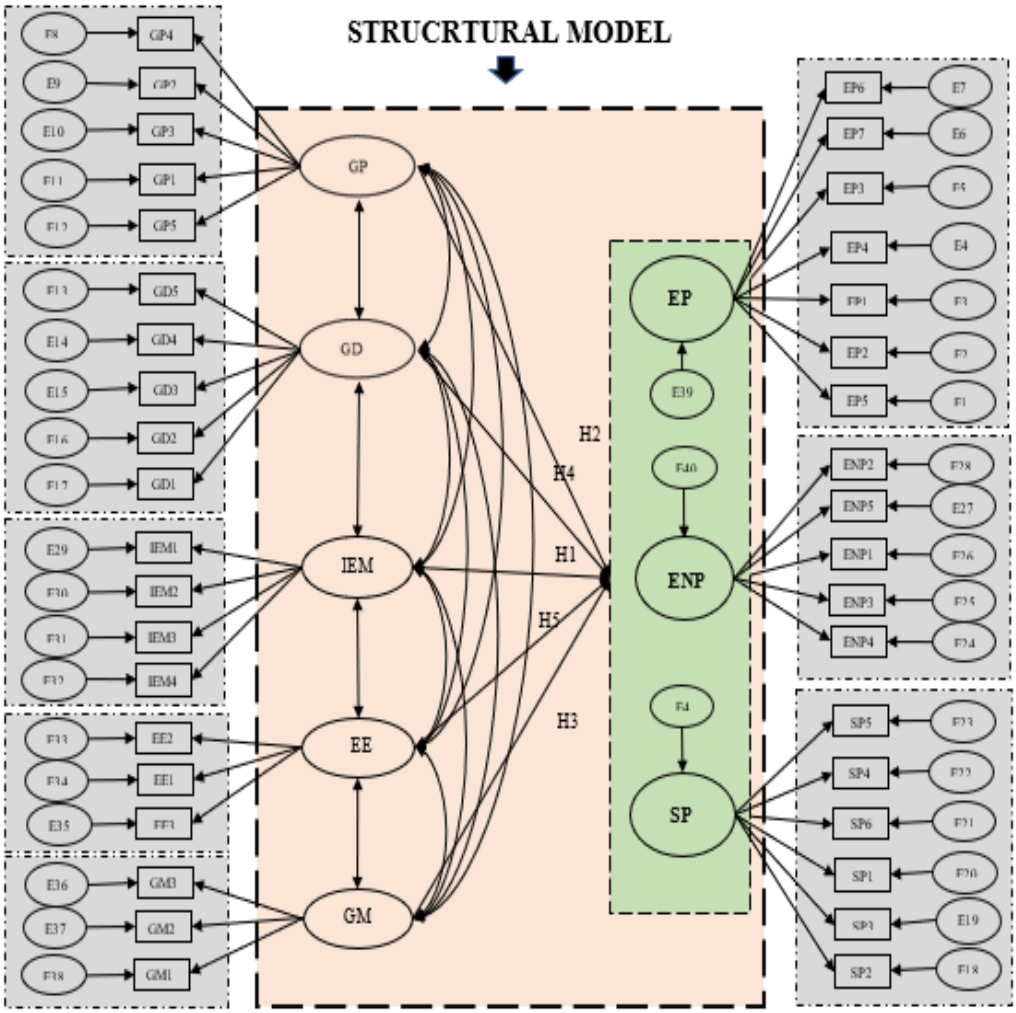
H4: *There is a positive influence of green distribution on sustainability.*

Green environmental education has long been seen as a crucial tool for ensuring human expansion and open access to a future sustainable society. Success in environmental education includes two key objectives. Teaching each employee about the company's particular environmental policies comes first. Changing each person's behavior will create a more stable and responsible connection with the rest of the world (Cankaya et al., 2018).

H5: *There is a positive influence of environmental education on sustainability.*

The most notable aspect of the third step was the Structural Equation Modeling (SEM) estimation, which involved following an iterative process that was based on theoretical and empirical analyses to obtain a structural model fit. The software packages SPSS 22.0 and AMOS 22.0 were used in the processing of the collected data.

Figure 1: Hypothesis Framework.



Results

Relationships between variables may be estimated using modern statistical methods like Structural Equation Modeling (SEM) (Wang & Rhemtulla, 2021). AMOS.22 was used to conduct Structural Equation Modeling (SEM) to test hypotheses. Confirmatory Factor Analysis (CFA) was used to check the reliability and validity. Loading intervals and reliability estimates are summarised for each construct in Table 1. Cronbach's Alpha for internal environment management, green procurement, green manufacturing, green distribution, environmental education, economic performance, environmental performance, and social performance was 0.834, 0.929, 0.826, 0.914, 0.904, 0.937, 0.828, and 0.820, respectively. All Cronbach‘s Alpha values were higher than 0.7, indicating that the correlations between the observable and latent variables are reliable (de Leeuw et al., 2019).

Table 1: Factor Loading and the Cronbach’s α Estimates (Cronbach’s Alpha).

Internal environment management (Cronbach's Alpha)		**0.834**
IEM1	Commit GSCM from senior managers	0.782
IEM2	Support to GSCM from mid-level managers	0.783
IEM3	Establish a cross-functional cooperation team	0.784
IEM4	Take criteria to measure green quality	0.815
Green procurement (Cronbach's Alpha)		**0.929**
GP1	Ensure suppliers meet their environmental objectives	0.915
GP2	Require suppliers to have ISO 14000	0.914
GP3	Purchase materials with green attributes	0.911
GP4	Purchase equipment that saves energy	0.911
GP5	Purchase goods with eco-labeling	0.914
Green manufacturing (Cronbach's Alpha)		**0.826**
GM1	Ensure product have recyclable contents	0.777
GM2	Minimize the use of materials in packaging	0.770
GM3	Encourage reuse of products and recycled materials	0.751
GM4	Use Life Cycle Assessment to evaluate environmental load	0.820
Green distribution (Cronbach's Alpha)		**0.914**
GD1	Recyclable whether reusable packages or containers in logistics	0.903
GD2	Reuse of valuable components of an end-of-life product	0.900
GD3	Select a method for cleaner transportation	0.897
GD4	Use routing systems to reduce travel activity	0.892
GD5	Identify defective merchandise to reuse	0.884
Environmental education (Cronbach's Alpha)		**0.904**
EE1	Participate in non-government and government-subsidized programs about GSCM and sustainability	0.869
EE2	Participate in training courses on GSCM and sustainability for executives	0.853
EE3	Participate in training courses on GSCM and sustainability for managers and members	0.867
Economic Performance (Cronbach's Alpha)		**0.937**
EP1	Reduce cost for environmentally friendly input procurement	0.925
EP2	Reduce the cost of delivery and inventory	0.924
EP3	Reduce fee to waste discharge	0.926
EP4	Increase demand flexibility, delivery flexibility, and production flexibility	0.926
EP5	Ensure procurement and delivery on time	0.931
EP6	Capture demand for environmentally friendly product market	0.930
EP7	Obtain a certificate for a green product warranty	0.926
Environmental Performance (Cronbach's Alpha)		**0.828**
ENP1	Optimize process for waste and emission reduction, pollution control	0.781
ENP2	Recognize products of ecolabeling, recycled material, and design-for-assembly	0.800
ENP3	Save energy consumption and recycling process	0.790
ENP4	Encourage green and clean technology use	0.777
ENP5	Increase efficiency in scarcity of resources, higher waste generation and waste disposal problem	0.820
Social Performance (Cronbach's Alpha)		**0.820**
SP1	Increase social and environmental responsibility	0.787
SP2	Increase organizational capability	0.784
SP3	Increase employees' motivation, health and safety	0.785
SP4	Increase customer interest and satisfaction with green products	0.781
SP5	Create trust in society or the public	0.827
SP6	Get government support for enforcement	0.785

Source: Field Survey Data, 2023

All factor loading values in Table 2 are over the 0.5 threshold, indicating that they fall within the allowable range (Al-Lozi et al., 2018; Sung et al., 2019). To examine discriminant validity in covariance-based SEM, Rimkeviciene et al. (2017) proposed a comparison strategy. The Kaiser-Meyer-Olkin (KMO) test was used to look at the relationship performance measures and determine whether the factor analysis

for the scale was adequate; all the results were within the acceptable zone of more than 0.5. KMO's value in the research required a significance level over 0.5 to be considered statistically significant (0.908). In addition, we pulled out all possible components having an eigenvalue greater than one (1.1163). Through Bartlett's test of sphericity, we may see whether the observed variables in the factor are associated with one another. Statistically, the results of Bartlett's test are significant (sig Bartlett's Test 0.05 (0.00), demonstrating a significant correlation between the observed variables within the factor. The factor loading coefficient represents the strength of the association between a given factor and an observable variable. This variable's factor loading coefficient of 0.7 is statistically significant. Overall, the factor loadings of the 8 factors were greater than 0.70, exception of the Internal Environment Management (IEM4=0.634), Economic Performance (EP6=0.685), Environmental Performance (ENP5=0.680), and Social Performance (SP5=0.509) component. Validity in previous research was often deemed to be met by factor loadings of 0.50 or higher (Yu et al., 2013). The last step of the measuring process was averaging the results for each multivariate construct. The EFA recommended that the objects be put into the suitable dimensions that were being investigated, which supported the specification of the SEM (Table 2).

Table 2: Scale of Factors and test Parameters in Exploratory Factor analysis (EFA).

Items	Factors							
	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**
IEM1	0.821							
IEM2	0.769							
IEM3	0.761							
IEM4	0.634							
GP4		0.809						
GP3		0.795						
GP2		0.792						
GP1		0.781						
GP5		0.777						
GM3			0.823					
GM2			0.735					
GM1			0.723					
GD5				0.894				
GD4				0.863				
GD3				0.848				
GD2				0.840				
GD1				0.815				
EE2					0.837			
EE1					0.813			
EE3					0.810			
EP2						0.817		
EP5						0.796		
EP1						0.794		
EP4						0.788		
EP3						0.768		
EP7						0.697		
EP6						0.685		
ENP4							0.779	
ENP1							0.768	

ENP3	0.662	
ENP2	0.689	
ENP5	0.680	
SP2		0.771
SP3		0.720
SP1		0.707
SP4		0.684
SP6		0.684
SP5		0.509
Parameters of test		
Kaiser-Meyer-Olkin (KMO)	0.908	
Cumulative % (Initial Eigenvalues)	70.208%	
Bartlett's Test of Sphericity (Sig.)	0.000	
Initial Eigenvalue	1.1163	

Source: Field Survey Data, 2023

In the research, Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were performed using the statistical software program SPSS AMOS version 22.0 to assess the degree to which the survey data sets were a good match for the model. The covariance connection between E8 and E9 was produced by utilizing a modified index. Similarly, the covariance relationship between E13 and E17, E29 and E30, and E6 and E7 was also obtained (Figure 2). The investigation resulted in the generation of a fit-generated structural model that indicated a p-value of 0.000 (p-value less than 0.01), a chi-square value of 1,289.551 (2,793.8), and a goodness of fit index (GFI) of 0.887 (> 0.800). According to the findings of Baumgartner and Homburg (1995), this index can be accepted at a value of 0.8 even though GFI cannot be less than 0.9. Other acceptable values include a Tucker-Lewis index (TLI) of 0.943 (> 0.900), a comparative fit index (CFI) of 0.948 (> 0.900), and a root mean square error of approximation (RMSEA) of 0.044 (less than or equal to 0.080. In light of these findings, the research model was put through its paces and the outcomes give proof that the model is appropriate (Table 3).

Table 3: Model Fit Indicators in SEM.

Indicators	Cut-off values	Calculated values	Conclusion
Chi-square/df	≤ 3.000	2.028	Fit
CFI	≥ 0.900	0.948	Fit
GFI	≥ 0.800	0.887	Fit
TLI	≥ 0.900	0.943	Fit
RMSEA	≤ 0.080	0.044	Fit

Source: Field Survey Data, 2023

Note: Cut-off values adopted from Yu *et al.* (2013)

Impact of GSCM on economic performance

The value of the correlation between GSCM practices and economic performance is R=0.514, which indicates that it is a robust and favorable association (Table 4). Economic performance is considered the first variable of sustainability performance. The GSCM techniques have a favorable impact on economic performance, according to the theory that was provided. It is hypothesized that GSCM procedures have a beneficial influence on economic performance (1a, 1b, 1c, 1d, and 1e). Data from Table 4 indicates that Green procurement has a positive value of = 0.723 and a P value of 0.00, which is less than 0.05. As a result, we accept 1b as true for certain GSCM procedures. Green manufacturing, green distribution,

environmental education, and internal environmental management all have a negative beta for economic performance. Consequently, for these GSCM procedures, we must reject hypotheses 1a, 1c, 1d, and 1e.

Table 4: Final Estimates of the Relationship Between GSCM and EP.

Relationship	Estimate β	S.E	C.R	P – value	Hypothesis Result
EP ← IEM	0.125	0.093	1.336	0.181	Not accepted
EP ← GP	0.723	0.054	13.401	***	Accepted
EP ←GM	-0.188	0.062	-3.026	0.002*	Not accepted
EP ←GD	-0.121	0.035	-3.437	***	Not accepted
EP ←EE	-0.054	0.052	-1.044	0.297	Not accepted
R^2 = 0.514 (EP)					

Source: Field Survey Data, 2023

Note: *, **, and *** are levels of significance at $P < 0.05$, $P < 0.01$, and $P < 0.001$, respectively.

EP = 0.723 GP – 0.188 GM – 0.121 GD (1)

The first equation (1) demonstrates that there are three aspects (green procurement, green manufacturing, and green distribution) of GSCM practice that have a major impact on economic performance. The value of the original sample, which was 0.723, reveals that green procurement is the most influential variable positively on economic performance. It means that Procuring goods and services in a more environmentally responsible way may boost economic output by ensuring the use of products and services that meet stringent sustainability standards. On the other hand, green manufacturing and green distribution both have a detrimental impact on economic performance.

Impact of GSCM on Environmental Performance

Table 5 demonstrates the findings of the second hypothesis that was presented about environmental performance and how the use of GSCM procedures affects environmental performance. Because the P-value for each dimension (except for Green distribution) is lower than 0.05 and the beta coefficient for internal environmental management (0.379) and green procurement (0.316) is positive, the research indicates that environmental performance is significantly improved by green procurement and internal environmental management. According to the findings of this research, the hypotheses that were suggested 2a and 2b are supported. As a result, companies are able to improve their performance in terms of the environment by increasing the frequency of these activities. On the other hand, the suggested hypotheses 2c, 2d, and 2e cannot be accepted since their corresponding beta values are negative: 0.203, 0.082, and 0.242, respectively.

Table 5: Final Estimates of the Relationship Between GSCM and ENP.

Relationship	Estimate β	S.E	C.R	P – value	Hypothesis Result
ENP ← IEM	0.379	0.128	2.973	0.003*	Accepted
ENP ← GP	0.316	0.060	5.244	***	Accepted
ENP ← GM	-0.203	0.083	-2.450	0.014**	Not accepted
ENP ← GD	-0.082	0.047	-1.754	0.079	Not accepted
ENP ← EE	-0.242	0.070	-3.459	***	Not accepted
R^2 = 0,109 (ENP)					

Source: Field Survey Data, 2023

Note: *, **, and *** are levels of significance at $P < 0.05$, $P < 0.01$, and $P < 0.001$, respectively.

ENP = 0.379 IEM + 0.316 GP - 0.203 GM – 0.242 EE (2)

Equation (2) shows the result of the regression analysis for testing the effect of GSCM on environmental performance. The environmental performance of sustainability is significantly impacted by four factors of GSCM practices (internal environmental management, green procurement, green manufacturing, and environmental education). According to the results of the data, the factor that has the greatest impact on environmental performance is internal environmental management, which received a value of 0.379. The second most important factor is green procurement, which received a value of 0.316. It indicates that managers' participation in GSCM to construct a company's green team and green quality measurement may increase environmental performance. There was a negative correlation between environmental performance in green manufacturing and environmental education in this research.

Impact of GSCM on Social Performance

Table 6 shows the results of hypotheses 3a, 3b, 3c, 3d, and 3e that GSCM practices improve social performance. The beta values of internal environmental management (0.354), green procurement (0.327), and environmental education (0.418) reveal a good link with social performance (Table 6). Hypotheses 3a, 3b, and 3e are accepted since the P-value of internal environmental management, green procurement, and environmental education is 0.000, less than 0.001. Finally, green manufacturing and distribution beta values 0.212 and 0.033 showed that social performance was negatively associated, disproving hypotheses 3c and 3d.

Table 6: Final Estimates of the Relationship Between GSCM and SP.

Relationship	Estimate β	S.E	C.R	P – value	Hypothesis Result
SP ← IEM	0.354	0.096	3.669	***	Accepted
SP ←GP	0.327	0.047	7.028	***	Accepted
SP ←GM	-0.212	0.062	-3.026	***	Not accepted
SP ←GD	-0.033	0.034	-0.945	0.345	Not accepted
SP ← EE	0.418	0.096	4.343	***	Accepted
R^2 = 0, 194 (SP)					

Source: Field Survey Data, 2023

Note: *, **, and *** are levels of significance at $P < 0.05$, $P < 0.01$, and $P < 0.001$, respectively.

SP = 0.354 IEM + 0.327 GP - 0.212 GM + 0.418 EE (3)

According to Equation (3), there are four GSCM-related factors that have a significant effect on the societal performance of sustainability. The four elements are green purchasing, green production, green marketing, internal environmental management, and environmental education. The original sample value of 0.418 indicates that environmental education has the greatest impact on social performance. The results of this research show that environmental education may improve the social performance of sustainability. This finding is in line with research by Febry et al. (2022), who discovered that providing environmental training to managers and staff may boost a company's social performance and hence its sustainability performance. Environmental government policies boost sustainability's social performance. This study contradicts Sezen and Cankaya (2019), who found that environmental education did not improve social performance. Environmental education raises awareness and achieves a green strategy to reach the public, but it takes time to see the effects.

Discussions

Economic Performance Aspect

The findings of structural equation modeling reveal that there is only one factor that determines economic performance, and that factor is green procurement. This finding is in line with the findings of

numerous other investigations (Febry et al., 2022; Adnan et al., 2021; Le, 2020; Wisdom et al., 2019; Hassan et al., 2016). The research also shows that there is a considerable correlation between green procurement and economic performance. It has been shown that purchasing goods and services that minimize environmental effects contributes considerably to improved economic performance. The findings also demonstrated that businesses that engage in environmentally responsible purchasing may successfully contribute to an improvement in economic performance. Zailani et al. (2012) believe that green procurement may improve their community image. However, the research differs from the result of Yassine (2022), who noted there was no relationship between green procurement and economic performance.

There is no statistically significant link between EP and internal environmental management, green production, green distribution, or environmental education. To be more precise, EP makes no noticeable difference in the way the research manages its internal environment. It's very much like what Benedict et al. (2022) found. There is no connection between EP and the green manufacturing factor. Sezen and Cankaya (2013) came to the same conclusion. Moreover, the result demonstrates that green distribution does not positively influence EP (Febry et al., 2022; Le, 2020). Finally, although our study did not find a correlation between environmental education and EP, prior research by Febry et al. (2022) and Adnan et al. (2021) did find such a link.

Environmental Performance Aspect

This research demonstrated how internal environmental management and green procurement affect environmental performance. According to the results, internal environmental management of GSCM practice enhances ENP, which is confirmed by previous studies by Benedict et al. (2022), Febry et al. (2022), and Adnan et al. (2021). Febry et al. (2022), Adnan et al. (2021), and Wisdom et al. (2019) state that green procurement reduces environmental pollutants, which may improve environmental performance. This study found that green procurement helps businesses. Nevertheless, Le (2020) and Hassan et al. (2016) found no relationship between green procurement and ENP.

On the other hand, the factors of green manufacturing, green distribution, and environmental education do have not a significantly positive effect on ENP. As a result, these hypotheses are rejected. Its findings for the green manufacturing factor contradict those of Febry et al. (2022), Adnan et al. (2021), Le (2020), Wisdom et al. (2019), Ardian et al. (2018), and Sezen and Cankaya (2013), who discovered that green manufacturing has positive and significant influences on environmental performance. That implies that green manufacturing practices such as process optimization and the use of cleaner production not only minimize negative environmental effects but also cut costs and boost revenues. Nevertheless, the link between green distribution and ENP is minor. This is consistent with the findings of prior studies by Febry et al. (2022).

Social Performance Aspect

The variables of internal environmental management, and green procurement have a positive relationship with SP. The findings of the study show that the internal environmental management practices of GSCM contribute to achieving social performance. This confirms the findings in the study of Benedict et al. (2022), Febry et al. (2022), and Adnan et al. (2021) that when activities of internal environmental management are senior managers' commitment to mid-level managers' support, cross-functional cooperation team, and green quality criteria. In other words, in this study, EE has the highest impact on environmental performance with a beta value of 0.418 (Table 6). Raise awareness and

understanding of green supply chains, actively participate in knowledge training programs on green supply chains and sustainable development organized by the government and non-governmental organizations. A training course on production and business management under a green and sustainable supply chain for managers and employees has a positive impact and improves social performance. This has also been demonstrated in research in environmental education supporting the sustainable performance of a company. This correlation is the highest among other continents and similar results are reported by Febry et al. (2022), Rizki and Augustine (2022), and Adnan et al. (2021). By contrast, green manufacturing and green distribution do not significant and positive impact on social performance. Thus, green manufacturing and green distribution do not improve sustainability performance. Similar results were reported by Febry et al. (2022), Le (2020), and Ardian et al. (2018).

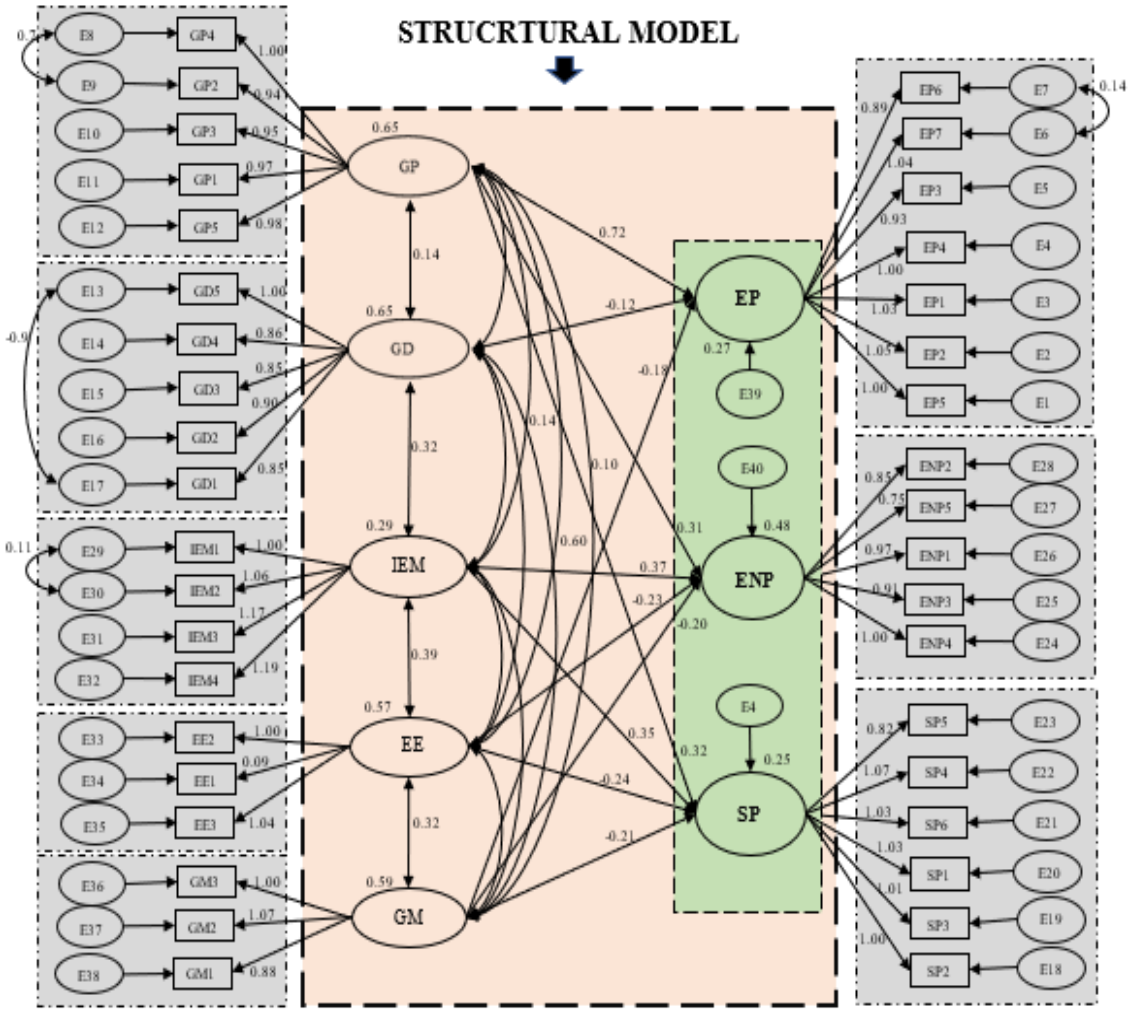
Conclusion

In a number of different areas, the research made a contribution to the existing literature on GSCM practices and sustainability performance. The study worked to construct and assess a conceptual model of the relationship between the application of GSCM principles and sustainable development (economic, environmental, and social aspects). In addition, there is not a great amount of research that has been published that concentrates on the awareness of economic students who will go on to become businesspeople in the future. They need to have a clear understanding of both their position and responsibilities in the expansion of the company and the economy. Previous research mostly focused on analyzing the impacts of GSCM techniques on the sustainability performance of businesses and their perspectives. Yet, there is not yet a theoretical framework that offers a connection of economic student awareness that mediates the relationship between GSCM practices and the performance of sustainability.

The present research offers a deeper understanding of which eco-friendly business activities in supply chains have the potential to improve environmental performance. This research not only validates previously held beliefs regarding the relationship between green supply chain practices and sustainable performance, but it also makes a contribution to our empirical understanding of the association between green supply chain practices and sustainable performance as a result of increased awareness of the economic factors that are at play. In addition to this, it sheds light on which particular green supply chain activities contribute particularly to each of the three indicators of sustainable performance. The results of the research provide a contribution to the current body of knowledge and suggest that environmentally responsible purchasing may explain all three metrics of sustainable performance. The internal environmental management practice adds to the performance of the environment and society, but not the performance of the economy. Education about the environment has a significant influence on improving overall societal functioning.

The findings show that there is no relationship between green manufacturing, green distribution on sustainability performance. This is evidence of poor awareness of economic learners for the impact of green manufacturing, and green distribution on sustainability performance. Therefore, university education needs to emphasize on vital role of five factors (internal environmental management, green procurement, green manufacturing, green distribution, and environmental education) for the sustainable development of economic, environmental, and social aspects. Upgrading the awareness of economic learner play an important role in establishing business people, and enterprises towards social responsibility, community action, and eco-friendly production for sustainability.

Figure 2: SEM Model of GSCM and Sustainability Performance.



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